

REMARKS

Claims 1-3, 5-9, 12-14 and 16-27 are pending in this application. By this Amendment, claims 1, 5, 8, 12, 16 and 19 are amended to include allowable subject matter, claims 4, 10, 11 and 15 are canceled, and claims 20-27 are added.

No new matter is added by this Amendment. Support for new claims 20-27 may be found at, for example, page 24, lines 16-18 of the specification.

I. Allowable Subject Matter

Applicants thank the Examiner for the indication that claims 4, 5, 8, 15, 16, and 19 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

To this end, Applicants herein amend claim 1 to include the subject matter of claim 4, amend each of claims 5 and 8 to include the subject matter of claim 1, amend claim 12 to include the subject matter of claim 15, and amend each of claims 16 and 19 to include the subject matter of claim 12. Accordingly, as acknowledged by the Patent Office, each of claims 1, 5, 8, 12, 16 and 19, as well as the claims depending therefrom, are in condition for allowance.

II. Rejection Under 35 U.S.C. §103(a)

Claims 1-3, 6, 7, 9-14, 17 and 18 were rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,052,745 (Miller). This rejection is respectfully traversed.

Claims 10 and 11 are herein canceled. Thus, with respect to these claims, this rejection is moot.

As discussed above, claims 1-3, 5-9, 12-14 and 16-19 are in condition for allowance. This rejection is thus moot.

III. New Claims 20-27

As noted above, because the independent claims were amended to include allowable subject matter, the rejection of those claims in view of Miller is moot. However, with respect to new claims 20-27, Applicants submit that the new claims are neither anticipated nor rendered obvious by Miller.

The Office Action asserts that PLB in Fig. 1 of Miller corresponds to the first bus of the presently claimed invention. The Office Action further asserts that the External Bus of Miller corresponds to the second bus of the presently claimed invention. Applicants respectfully disagree.

Miller is directed to performing a fixed length burst transfer through PLB between a master 20 and a slave 26 and the device 100, as shown in Fig. 2 of Miller.

New independent claim 20 recites a data transfer control system for transferring data through a bus including a command processing section that omits decode processing of a command for calculating a size of a DMA data length and issues the command to a device connected with a second bus, the command being included in the command packet which is transferred through a first bus.

New independent claim 24 recites a data transfer control method including omitting decode processing of a command for calculating a size of a DMA data length and issuing the command to a device connected with a second bus, the command being included in the command packet which is transferred through a first bus.

That is, in the presently claimed invention of claims 20 and 24, the command processing section receives a command packet transferred through a first bus and issues a command included in the command packet to a device connected with a second bus.

Moreover, the DMA transfer instruction section sets a fixed DMA data length irrespective of

the type of the issued command and instructs the start of DMA transfer to or from the device connected with the second bus.

With respect to these claimed features, the Office Action cites column 1, lines 15 to 17 of Miller and asserts that Miller discloses peripheral devices attached to the external bus, as shown in Fig. 1 of Miller.

However, Miller states in column 1, lines 15 to 17 that the "peripherals in a computer system were normally attached to the processor via an external bus now are attached to a local bus" (PLB in a computer system). Accordingly, in Fig. 1 of Miller the peripheral devices (master device, slave device) are attached to the local bus PLB but not to the external bus. Therefore, it is clear that the assertion of the Office Action is incorrect.

Furthermore, Miller is silent about omitting decode processing of a command (which is included in a command packet transferred through a first bus) for calculating the size of a DMA data length and issuing the command to a device connected with the second bus.

Instead, Miller discloses decode processing of a command from calculating the size of a data length for a burst transfer. See column 4, line 36 to column 5, line 5 of Miller. Unless decode processing of a command is carried out, it is impossible to generate the BE signals shown in Table 2 of Miller (see column 5 of Miller).

In contrast, according to claims 20 and 24 and as shown, for example, in the embodiment of Fig. 9 of the present application, the command processing section omits decode processing of a command (which is included in a command packet) for calculating the size of a DMA data length, and issues the command to a device connected with the second bus. Accordingly, the presently claimed invention of claims 20 and 24 omits the processing in steps 32 to 38 of the comparative example which is illustrated in Fig. 12 of the present application. In this way, the decode processing load may be reduced and data transfer

efficiency may be enhanced. See page 12, line 28 to page 19, line 16, as well as and Figs. 9 and 11, of the present application. These benefits are not taught or suggested by Miller.

For the foregoing reason, Applicants submit that independent claims 20 and 24 as well as the claims dependent therefrom, are neither anticipated nor rendered obvious by Miller.

IV. Rejection 35 U.S.C. §101

The Office Action rejects claims 10 and 11 under 35 U.S.C. §101 because claims 10 and 11 are allegedly directed to non-statutory subject matter. This rejection is respectfully traversed.

Claims 10 and 11 are herein canceled without prejudice and without disclaimer to the subject matter contained therein. Accordingly, this rejection is moot.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Linda M. Saltiel
Registration No. 51,122

JAO:LMS/bdh

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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